



The Loon's Call

The other day I heard from Carl, one of my canoe partners from a trip into the Quetico, informing me that the trip's leader was about to have his 99th birthday. Not just my professor and college advisor, but my friend, I think Howard was 69 the last year I went with him into the wilderness. Thirty years later, I marvel not only at his ability to make a trip so strenuous, but his willingness to take on the responsibility for a group of 20 young people. And he did so year after year after year. This was a man who made his living investing in others, and he understood the power of bringing people to a place that could influence their lives forever. What better place to bring groups of aspiring biologists? The wilderness can speak to you, but you need to be there in order to listen.

The call brought back memories of days spent paddling quiet waters, exploring lovely shorelines, fishing for your dinners, and evenings spent listening to the calls of the loons. I have always enjoyed the loon's call. There is something about it that resonates deep inside a person; something that sparks the soul.

The common loon, our State bird, is a symbol of northern lakes and wild places. Widely distributed in Canada and Alaska, loons occur in the northern two thirds of Minnesota. We have more loons (about 12,000) than any state except Alaska.

The Chippewa National Forest is home to quite a few loons. Not all lakes are the same when it comes to habitat conditions suitable for loons to successfully nest and rear their young. The best loon lakes have clear water, undisturbed shorelines, and plenty of fish. There is more than 2000 miles of shoreline on over 800 lakes (10+ acres) in the Chippewa; about half of this shoreline is in public ownership.

Loons need clear and unpolluted waters. Primarily fish eaters (species like yellow perch and bluegills), loons locate their prey as they float around on top of the water, head stuck in the water while they look around underneath them. Powerful swimmers, they chase fish under water, diving as deep as 250 feet, and staying submerged as long as 5 minutes.

Loons are territorial, especially early in the breeding season. Minnesota loons winter either in the Gulf of Mexico or the Atlantic Ocean; the Great Lakes are used as a staging area. They return north to our lakes early in the spring as the ice is going out. They arrive unpaired, within days of each other, and set up their nesting territories, which they defend vigorously. Yodel calls are

made by the males guarding their territories, and tremolo calls are signs of aggression. Territory takeovers can result in the death of the displaced male.

I learned about the aggressive actions of loons one year when I thought I would take up swimming on a small, but very deep lake not far from my home. I chose this lake in order to avoid having to worry about motor boats. Half way across the lake, I became aware of the presence of a pair of loons, and what I thought would be a nice, quiet swim became something of a nightmare as I was surrounded by the agitated birds. They beat their wings on the water and screamed loud tremolo calls as they circled round and round me. Let me tell you, they look lots bigger when you are at eye level to them in deep water. I made a hasty retreat. At the time, I did not realize that loons will physically attack each other, and can cause death by impaling the loon they are attacking with their bill. Perhaps I was fortunate on that day.

Although loons can be long-lived (perhaps 30 years), they do not have high reproductive success. On average, an individual loon produces only 5 to 10 fledged chicks over the course of its lifetime. What are the factors that work against loons? Many things, some of which you can influence.

Both loon parents invest in incubating the 2 eggs, and caring for the young. Loons nest along the water's edge, and shoreline development and disturbance negatively affect loon nesting success. Nests are subject to predation by a variety of mammals, and by birds if the nest is left untended. Shoreline development leads to a higher density of predators. Raccoons are particularly implicated in this situation.

Loons are in the news this year as they are being driven off of their nests by swarms of black flies. Their only relief is repeatedly diving under the water, and nests are being abandoned.

Loon chicks depart the nest with their parents shortly after hatching. Loon chicks are susceptible to predation by eagles, snapping turtles, large fish, and some gulls. Chicks are sometimes seen riding upon an adult loon's back, which is thought to protect them from predation, as well as keep them warm. Chicks are capable of very shallow dives on their first day. They can dive and chase fish by the end of their first week.

Both parents stay with the chicks and feed them. One parent is always with very young chicks, while the other parent dives to obtain food. By six weeks old, chicks are left alone for longer intervals, although the parents return quickly at signs of danger. Chicks are susceptible to mortality by non-breeding adult male loons.

At about 12 weeks of age or so, the chicks are on their own. They remain on their natal lakes another 1 to 3 weeks after their parents leave. If the initial nesting attempts fail, the adults may re-nest once or twice, which can result in a race for adequate chick development before winter and ice return. Parents migrate first. It is reported that flights may include thousands of irregularly spaced individuals, or migrants may fly alone or in small groups.

Other threats to loons include environmental contaminants, and the use of lead fishing tackle. Loons pick up lead weights and small lead jigs when picking gravel from the lake bottom, the

result being lead poisoning. Mercury poisoning and acid rain are also population issues in some areas of the loon's range. Marine oil spills are a major threat. Still under study, the B.P. oil spill in the Gulf in April 2010 resulted in at least 180 Minnesota loons killed directly, with many more carrying some lethal concentrations of contaminants. Young loons from Minnesota spend 2 years in the Gulf before returning home.

Loons are being affected by climate change. In recent years, avian botulism has resulted in the deaths of thousands of loons stopping on the Great Lakes during migration. A combination of invasive species and warming waters appears to be the cause.

The evening concerts at our Quetico lake were especially amazing, because in the Quetico loons are at their best. A lake like this provides undeveloped, undisturbed shoreline on which to nest, with a multitude of bays that support a number of pairs. Calls echo back and forth, up and down the lake. Even from your camp site, you are literally surrounded by loons, immersed in their communications. A magical experience, 30 years later I can feel it still.

A stark contrast came at a recent family picnic. My husband's family gathers every year on the 4th of July at a lake in the Chippewa. One of those lakes primarily held in private ownership, only 5% of the shoreline is publicly held. Despite that, it is often a quiet place, and morning coffee on the dock is one of my favorite things. There is a resident pair of loons on this lake which I often see up close on these quiet occasions. Loons are curious creatures, and will come in to look you over. I cannot recall the last time that I saw a chick with this pair.

The lake was not so quiet on this summer holiday, as in fair weather it gets quite a workout. I'm used to that, but I have to admit I got something of a shock this year as I sat by the dock a while, watching the kids and the dogs. I am amazed at the size of some of the boats these days that are being used to pull people around on the water. Not just the boats and their massive horsepower, but the incredible size of some of the inflatable things and sheer number of people they are carrying behind those boats. When enough of these big boys get going, the drone of the outboards bark of their power, drowning out the alarmed calls of the loons, and the water becomes unending, choppy wake. Frankly, I found myself somewhat overwhelmed by the spectacle on the water.

Recreational boating and jet ski use can negatively affect loons through swamping of the nests, collisions with the birds, disruption to incubation, exposure of eggs to predation, and impeding parental care of the young. One study found that 39% of all loon mortality in New England was caused by trauma, with boat impacts contributing 36% to that total. I guess I can believe that. I was saddened when we found a dead common merganser duckling floating in the water after the 4th. The key appears to rest in the way in which watercraft are used.

If I could, I would invite these folks to come sit beside me, so we can see another side of things. Let's sit on the dock and gaze into the clear water. Let's think about our shrinking world, our shared conservation ethic, and what it is that interests us in the out of doors. Perhaps consider the size of your carbon footprint, and what impact you have on the resources around you. On a still morning, toss in some breadcrumbs and you can see the fish coming. Watch for the family of young mergansers as they scoot along the shoreline, hidden in the bulrushes. Sit still to meet a

dragonfly up close and personal. Listen to the birds singing from the forest behind us. Witness the dive made by the local osprey. Did you see that eagle chase after him and rob him of his fish? Experience the call of the loon.



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